



# CHILDHOOD

Roya was born in 1977 in Iran, one of the most dangerous countries for women, “Under Iran’s fundamentalist regime, a woman’s life legally holds half the value of a man’s life; polygamy is legal, allowing a man to have up to four wives; and men can file for divorce far more easily than women can...”( Ebadi 2022). She attended Tehran Farzanegan School, and it was this school where she met with Maryam Mirzhakani, the most influential woman mathematician of 20th century.



# FRIENDSHIP WITH MARYAM

Roya notes that Maryam was exceptional in every subject except math, until seventh grade. She recalls that in 7th grade, Maryam didn't score 100 on a math exam. She tearfully tore up the exam results. When Maryam returned from summer break, she was suddenly exceptional in mathematics. That inspired Roya to become a mathematician as well. When Roya reached high school, she -- along with Maryam -- became the first women to compete for Iran in the International Math Olympiad.



# MIT

After completing Bachelor's degree in math, Roya got accepted at MIT to pursue Ph.D in math. Roya proceeded to earn a Ph.D. in Mathematics from MIT, whilst Maryam completed her Ph.D. in the same subject on the other side of the Charles River. Roya recalls fond memories of her years at MIT with Maryam: on one occasion, she was assigned a take-home exam for a math class. Roya met with Maryam for help. The pair stayed up all night until 3 AM solving all but the last two problems. Roya resigned to sleep and urged Maryam to do the same, but when she woke up the next morning, she found Maryam at the same desk--still trying to solve the problem.



## **CAREER**

Roya would later reminisce that it was this perseverance that would inspire her in mathematical pursuits later in life. Roya completed her dissertation in 2003 on Lines of Fano Hyperspaces, and proved that "the Hilbert scheme of lines on any smooth Fano hypersurface of degree 6 or less has the expected dimension." Roya subsequently became a senior mathematics researcher at the Max-Planck Institute in Germany and a postdoctoral fellow at Queen's University in Canada and at UC Berkeley. In 2006, Roya became an Assistant Professor at Washington University in St. Louis.





## **MOTIVATION**

Born and raised in one of the countries dangerous for women, Roya was able to rise to the top using education as means to break the social barriers, first by participating as the first Iranian female in the International Math Olympiad and secondly by teaching as a math professor. Double Minority students will be motivated upon finding someone who looks like them in the STEM field, while other students will benefit from a more inclusive mindset of who can be a mathematician.